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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/465,980	12/16/1999	BARTLEY H. CALDER	SUNIP502	9641
22434	7590	11/29/2005	EXAMINER	
BEYER WEAVER & THOMAS LLP P.O. BOX 70250 OAKLAND, CA 94612-0250			VO, LILIAN	
			ART UNIT	PAPER NUMBER
			2195	

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/465,980

Applicant(s)

CALDER ET AL.

Examiner

Lilian Vo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 34, 36 - 37 and 39 - 48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 34, 36 - 37 and 39 - 48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

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1. Claims 1 – 34 and ³⁶⁻³⁷39 - 48 are pending. Claims 35 and 38 have been cancelled.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 – 30, 34, 36 – 37, 39 - 41 and 43 - 48 are rejected under 35 U.S.C. 102(e) as being anticipated by Judge et al. (US 6,430,570, hereinafter Judge).
4. Regarding **claim 1**, Judge discloses a computer program product for managing execution of an application on a computer according to a lifecycle (col. 2, lines 29 – 42, col. 7, lines 12 - 18), the computer program product comprising a computer readable medium storing thereon computer-readable instructions being executed on a computer, the computer-readable instructions including:

instructions for receiving a state change request from the application, the state change request indicating a request from an application manager initiate a change in state of the application from a first state to a second state (col. 4, lines 24 – 25, 38 - col. 5, line 14: application manager provides downloading, starting, stopping, querying, and memory

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management capabilities. Col. 9, lines 5 – 40: if a request is a startAppl() request, the application is start. Col. 11, lines 9 – 12 and col. 13, lines 7 - 35); and

instructions for initiating the state change of the application in response to the state change request received from the application when the second state is an allowable state according to a specified set of rules, thereby enabling the application to initiate its own state change via the state change request without human intervention (col. 2, lines 29 – 42, col. 9, lines 3 – 40, and fig. 4).

5. Regarding **claim 2**, Judge discloses that the second state is a paused state or destroyed state (col. 9, lines 19 – 21).

6. Regarding **claim 3**, Judge discloses a method of managing execution of an application according to a lifecycle (col. 2, lines 29 – 42, col. 7, lines 12 - 18), comprising:

receiving a signal indicating that a new service is selected (col. 9, lines 3 – 6);

initiating execution of the application when the new service is selected such that the application enters an active state (col. 3, lines 57 – 61, col. 9, lines 19 – 21: startAppl());

pausing execution of the application such that the application enters a paused state from the active state (col. 4, lines 24 – 25, col. 9, lines 19 – 21: stopAppl());

receiving a resume request from the application that has been paused indicating that the application wishes to resume execution and enter the active state from the paused state (col. 4, lines 24 – 25, col. 7, line 66 – col. 8, line 36); and

starting execution of the application from which the resume request was received such that the application enters the active state from the paused state when the resume request is

received from the application, thereby enabling the application to initiate its own state change via the state change request without human intervention (col. 4, lines 24 – 25, col. 8, line 32 – 33, col. 9, lines 3 – 40).

7. Regarding **claim 4**, Judge discloses a method of managing execution of an application according to a lifecycle (col. 2, lines 29 – 42, col. 7, lines 12 - 18), comprising:

initiating execution of each one of the plurality of applications such that the plurality of applications enter an active state (col. 3, lines 57 – 61, col. 9, lines 10 – 24);

pausing execution of one of the applications such that the application enters a paused state from the active state (col. 4, lines 24 – 25, col. 9, lines 10 – 24);

receiving a resume request from the one of the applications that has been paused, the resume request indicating that the application request to resume execution and enter the active state from the paused state (col. 4, lines 24 – 25, col. 7, line 66 – col. 8, line 36); and

starting execution of the application from which the resume request was received such that the application enters the active state from the paused state in response to receiving the resume request from the application, thereby enabling the application to initiate its own state change from paused state to active state without human intervention (col. 4, lines 24 – 25, col. 8, line 32 – 33, col. 9, lines 3 – 40).

8. Regarding **claim 5**, Judge discloses a method of managing execution of an application according to a lifecycle (col. 2, lines 29 – 42, col. 7, lines 12 - 18), comprising:

requesting a first time that the application changes its state from a first state to a second state by sending a request to the application, wherein the request is a conditional request that is

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conditional upon the application's decision to change from the first state to the second state, thereby enabling the application to allow or prevent its own state change from the first state to the second state in response to the conditional request (col. 4, lines 24 – 25, col. 9, lines 3 – 40);

determining whether the application has decided to allow its own state change from the first state to the second state in response to the conditional request by ascertaining whether the application has changed its state from the first state to the second state (col. 13, line 36 – col. 14, line 14); and

instructions for requesting a second time that the application change its change its state from the first state to the second state (col. 4, lines 24 – 25, col. 9, lines 3 – 40); and

requesting a second time that the application change its state from the first state to the second state when it is determined that the application has not changed its state from the first state to the second state and a predetermined condition is satisfied (col. 4, lines 24 – 25, col. 13, lines 8 – 35).

9. Regarding **claim 6**, Judge discloses the predetermined condition indicates that specified period of time has elapsed or that the application is now able to perform the request state change (col. 13, lines 29 – 35).

10. Regarding **claim 7**, Judge discloses wherein it is determined that the application has not changed its state when a state change exception is raised by the application (col. 13, line 64 – col. 14, line 1).

11. Regarding **claim 8**, Judge discloses wherein it is determined that the application has not changed its state when the application rejects the requested state change (col. 13, line 64 – col. 14, line 1).

12. Regarding **claim 9**, Judge discloses wherein it is determined that the application has not changed its state when the application is unable to perform requested state change (col. 13, lines 31 – 32, 64 – col. 14, line 1).

13. Regarding **claim 10**, Judge discloses a method of managing execution of an application according to a lifecycle (col. 2, lines 29 – 42, col. 7, lines 12 - 18), comprising:

requesting that the application change its state from a first state to a second state by sending a request to the application, wherein the request is a conditional request that is conditional upon the application's decision to change from the first state to the second state, thereby enabling the application to allow or prevent its own state change from the first state to the second state in response to the conditional request (col. 4, lines 24 – 25, col. 9, lines 3 - 40);

determining whether the application has decided to allow its own state change from the first state to the second state in response to the conditional request by ascertaining whether the application has changed its state from the first state to the second state (col. 4, lines 24 – 25, col. 9, lines 3 – 40); and

requesting that the application change its state from the first state to a third state when it is determined that the application has not changed its state from the first state to the second state (col. 4, lines 24 – 25, col. 13, line 36 – col. 14, line 14).

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14. Regarding **claim 11**, Judge discloses the active state, the destroyed state and the paused state (col. 9, lines 3 – 40).

15. **Claims 12 – 20** are rejected on the same ground as stated in claims 7 - 11 above.

16. Regarding **claim 21**, Judge discloses a system for managing execution of an application according to an application lifecycle (col. 2, lines 29 – 42), the system comprising:

a processor (col. 3, lines 9 – 15, fig. 1);

one or more rules (col. 2, lines 29 – 42, col. 9, lines 3 – 10, and fig 4);

an application manager capable of executing one or more applications according to an application lifecycle enabling each of the applications to enter one of a plurality of states in response to one or more associated predetermined commands (col. 2, lines 29 – 42, col. 4, lines 38 – 67, figs. 1, 2), the application manager capable of selecting one of the predetermined commands to execute according to the one or more rules (col. 2, lines 29 – 42, col. 9, lines 3 – 10, and fig. 4); and

a mechanism for enabling the application to at least initiate and prevent its own state change from a first one of the plurality of states to a second one of the plurality of states (col. 2, lines 29 – 42, col. 9, lines 3 – 10, and fig. 4).

17. Regarding **claim 22**, Judge discloses the system as recited in claim 21, further comprising:

a signaling monitor coupled to the application manager and capable of receiving a data stream, the signal monitor adapted for determining whether an application is present in the data

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stream and communicating information associated with the application to the application manager (col. 3, lines 22 – 40, 57 – col. 4, line 9, col. 6, lines 5 – 15, col. 9, lines 3 – 40, figs. 2 and 4).

18. Regarding **claim 23**, Judge discloses the system as recited in claim 21, wherein the application manager is configured to store an application context for each of the applications, the application context identifying a current one of the plurality of states (co. 7, lines 12 – 27).

19. Regarding **claim 24**, Judge discloses the system as recited in claim 23, wherein the current one of the plurality of states is identified by the associated application to the application manager (col. 7, lines 12 – 27).

20. Regarding **claim 25**, Judge discloses the system as recited in claim 23, wherein the application context further identifies a class loader capable of loading one or more classes associated with the application (col. 3, line 3, line 5 – col. 4, line 9, col. 10, line 46 – col. 11, line 58, col. 13, lines 46 – 52, figs. 3, 4 and 6).

21. Regarding **claim 26**, Judge discloses the system as recited in claim 23, wherein the application context further identifies a display context including display information to be displayed (col. 5, line 64 – col. 6, line 4, col. 11, lines 9 – 58, col. 12, lines 1 – 15, and 55 – 67).

22. Regarding **claim 27**, Judge discloses the system as recited in claim 21, further comprising an application environment object enabling the associated application to communicate with the

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application manager, thereby enabling the application to at least initiate its own state change, inform, and inform the application manager that it is preventing its own change state change that has been requested by the application manager (col. 4, lines 38 – 67, col. 5, lines 33 –36, col. 7, lines 13 – 27, fig. 6).

23. Regarding **claim 28**, Judge discloses the system as recited in claim 23, wherein the application context further identifies an application environment object that enables the associated application to retrieve properties associated with its runtime environment (col. 4, line 38 – col. 5, line 14, 33 –36, col. 7, lines 13 – 27, figs. 4 and 6).

24. Regarding **claim 29**, Judge discloses the system as recited in claim 21, further comprising an application environment object that enables the associated application to communicate a state change to one of the plurality of states to the application manager, wherein the state change has been initiated by the application (col. 4, line 38 – col. 5, line 14, 33 –36, col. 7, lines 13 – 27, figs. 4 and 6).

25. Regarding **claim 30**, Judge discloses the system as recited in claim 21, further comprising an application environment object that enables the associated application to request that the application manager change the current state of the application from a paused state to an active state, thereby enabling the application to initiate its own state change from paused to the active state (col. 8, lines 25 – 36, col. 9, lines 2 – 40, fig. 4).

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26. Regarding **claim 34**, Judge discloses a digital television receiver for managing execution of an application according to a life cycle, comprising:

means for determining from a data stream whether an application is present in the data stream (col. 3, lines 22 – 40, 57 – col. 4, line 9, col. 6, lines 5 – 15, col. 9, lines 3 – 40, figs. 2 and 4);

means for loading an application when it is determined that an application is present in the data stream (col. 3, line 3, line 5 – col. 4, line 9, col. 10, line 46 – col. 11, line 58, col. 13, lines 46 – 52, figs. 3, 4 and 6);

means for executing the loaded application according to the lifecycle, the lifecycle including a plurality of states (col. 4, lines 24 – 25, col. 9, lines 3 – 40);

means for enabling the application manager to cause the application to change from one of the plurality of states to another one of the plurality of states (col. 3, lines 22 – 41, col. 7, line 67 – col. 8, line 19, figs. 1, 4, 6 and 7); and

means for enabling the application to prevent a change in state of the application requested by the application manager or to communicate to the application manager a state change the application from one of a first set of the plurality of states to one of a second of the plurality of states, wherein the state change of the application is initiated by the application (col. 3, lines 22 – 41, col. 7, line 67 – col. 8, line 19, col. 13, lines 64 – 66, figs. 1, 4, 6, 7 and 9).

27. **Claims 36 – 37 and 39 - 41** are rejected on the same ground as stated in claims 7 – 9 and 11 above.

28. Regarding **claim 43**, Judge discloses means for releasing memory associated with the application when the application has been terminated (col. 7, lines 19 – 27, col. 8, lines 1 – 22, col. 9, lines 41 – 51).

29. Regarding **claim 44**, Judge discloses the
means for creating a class loader associated with each application such that a class loader is associated with the application, the class loader being adapted for loading one or more classes associated with the application (figs. 2 - 4, col. 3, lines 22 – 55);
means for employing the class loader to load the classes associated with the application (col. 4, lines 4 – 23); and
means for instantiating the application using the classes that have been loaded by the class loader (fig. 3, col. 4, lines 1- 23).

30. Regarding **claim 45**, Judge discloses means for unloading the classes associated with the application when the application is terminated (col. 8, lines 1 – 22).

31. Regarding **claim 46**, Judge discloses means for de-reference the class loader (col. 9, lines 41 – 51, col. 13, line 64 – col. 14, line 14).

32. **Claim 47** is rejected on the same ground as stated in claim 11 above.

33. Regarding **claim 48**, Judge discloses the request includes a parameter, the parameter when in a one state indicating that the state change is conditional (col. 13, lines 8 – 28: “a stop

operation begins ... instance to terminated”) and unconditional when in the other state (col. 13, lines 29 – 35: “stopping an ApplBase 514 ... termination by calling stop ()”).

Claim Rejections - 35 USC § 103

34. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

35. Claims 31 – 33 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Judge et al. (US 6,430,570, hereinafter Judge).

36. Regarding **claim 31**, Judge discloses that a display manager coupled to the application manager and adapted for managing a display context for each of the applications (figs. 1 – 2, col. 3, line 22 – col. 4, line 9, 24 - 35). Judge however did not clearly disclose the display context being in a first state when the display context is visible and being in a second state when the display context is invisible. Instead, Judge discloses the managing of application execution according to a life cycle in which application enters active state and paused state (col. 4, lines 24 – 25, col. 7, lines 12 – 18). It would have been obvious for one of an ordinary skill in the art, at the time the invention was made, to recognize the teaching of display context can be visible and invisible because when the application is in active state, output/result associated with its functions are to be displayed. On the other hand, when the application is in the paused state (inactive), there is nothing to be displayed, thus invisible.

37. Regarding **claim 32**, Judge discloses that display context is in the first state when the application is in an active state and in the second state when the application is in a paused state (col. 3, lines 57 – 61, col. 4, lines 24 – 25).

38. Regarding **claim 33**, Judge discloses that the state display context is determined according to the one or more rules followed by the application manager (col. 2, lines 29 – 42, col. 9, lines 3 – 40, and fig. 4).

39. Regarding **claim 42**, Judge discloses means for enabling the application to raise a state change exception indicating that the application does not want to change its state as the application manager has requested (col. 7, line 5 – col. 8, line 1 – 36: when application manager attempt to have applications continue to execute in low or no memory situations, an OutOfMemoryError is generated during the execution if out of memory occurs. Thus, this indicates that the applications cannot continue to execute as the application manager requested).

Response to Arguments

40. Applicant's arguments filed 9/16/05 have been fully considered but they are not persuasive for the reason set forth above and below.

41. Applicant's arguments (page 12, 5th paragraph) fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without

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specifically pointing out how the language of the claims patentably distinguishes them from the references.

42. With respect to applicant's remark that Judge indicates such requests may be received from a client and not the application (page 13, 4th paragraph), the examiner disagrees. A client is also run and/or operates with application program. In this case, Judge clearly discloses that a user request from client user application such as client user class ApplClientU 516 to client application Applclient 508 (col. 11, lines 9 – 12 and col. 13, lines 7 – 12).

43. Regarding applicant's remarks that "the parameter does not indicate whether the termination is conditional or unconditional" (page 13, 5th paragraph – page 14, 2nd paragraph), the examiner would like to point out that the claim did not recite or mention anything about the termination of the application. With respect to applicant's remarks, the application that is terminated is depending on the passing parameter. In other words, the application is conditionally changing to a different state according to the receiving parameter. Therefore, Judge clearly recites that the application is conditionally changing from one state to another.

44. Applicant's arguments with respect to claims 10, 15, 19, 20, 21, 27 – 42 fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

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45. Regarding applicant's argument that Judge fails to disclose a display context as claimed in claims 31 – 33 (page 15, 2nd paragraph and page 17, last paragraph – page 18, 1st paragraph), the examiner disagrees. As stated in the rejection above, Judge discloses the managing of application execution according to a life cycle in which application enters active state and paused state (col. 4, lines 24 – 25, col. 7, lines 12 – 18). It would have been obvious for one of an ordinary skill in the art, at the time the invention was made, to recognize the teaching of display context can be visible and invisible because when the application is in active state, output/result associated with its functions are to be displayed. On the other hand, when the application is in the paused state (inactive), there is nothing to be displayed, thus invisible.

46. In response to applicant's arguments that Judge neither discloses nor suggests constructing a class loader for an application (page 17, 1st paragraph), the examiner disagrees. Judge discloses that application 26 is brought to life after it has been loaded by the class loader (col. 4, lines 4 – 23). The step of constructing a class loader is considered inherent because in order for the class loader to load the application, it has to be constructed/instantiated to be existed. Furthermore, the claim languages clearly recite one application, thus a single class loader for the application can read into the claim.

In response to applicant's argument that the reference fails to show certain features of applicant's invention (page 17, 1st paragraph), it is noted that the features upon which applicant relies (i.e constructing a plurality of class loaders) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

47. In response to applicant's argument that Judge fails to disclose or suggest de-referencing the class loader when execution of the application ends (page 17, 2nd paragraph), the examiner disagrees. Judge discloses that application manager removes references to objects that are to be unloaded and caused the unreferenced objects to be removed from the application cache by calling the java runtime.gc() method (col. 9, lines 41 – 51, col. 13, line 64 – col. 14, line 14). In other words, when the objects are being unloaded, they are also dereferencing the class loader at the same time in order for the garbage collection to be performed (col. 8, lines 59 – 66).

In response to applicant's argument that the reference fails to show certain features of applicant's invention (page 17, 2nd paragraph), it is noted that the features upon which applicant relies (i.e application manager dereferencing a class loader) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

48. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (page 17, 5th paragraph), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

49. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

50. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilian Vo whose telephone number is 571-272-3774. The examiner can normally be reached on Monday - Thursday, 7:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist at 571-272-2100.

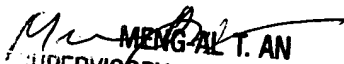
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lilian Vo
Examiner
Art Unit 2127

lv
November 25, 2005


MENG-AI T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100